ARMY GEOSPATIAL CENTER

ENABLING GEOSPATIAL INFORMATION DOMINANCE

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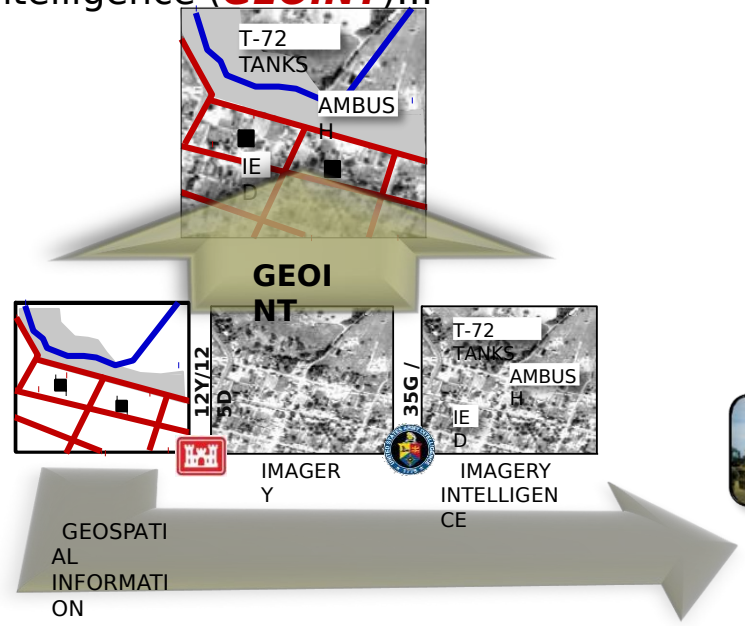
US Army Corps of Engineers ®

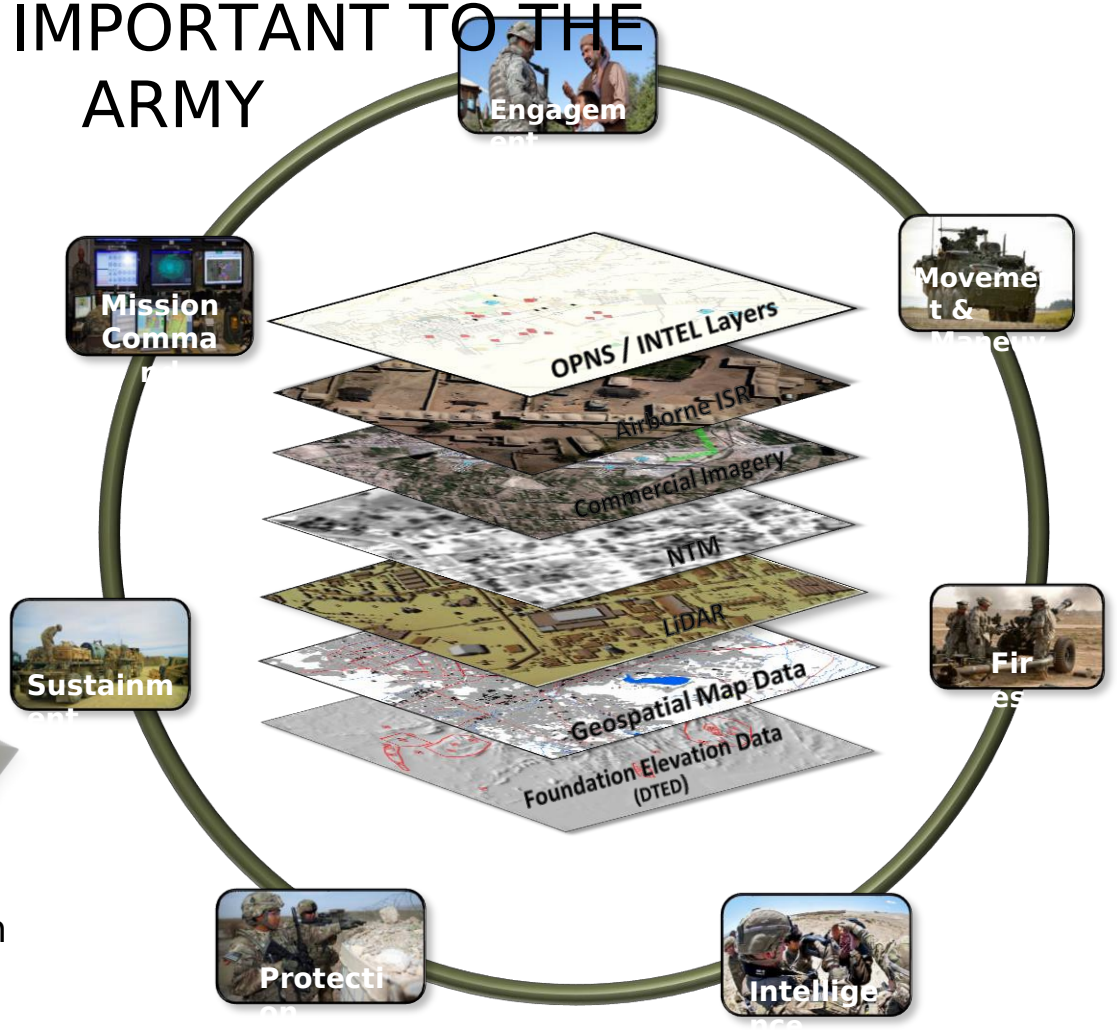
U.S.ARMY

GEOSPATIAL INFORMATION

WHY IT'S IMPORTANT TO THE ARMY

It is a ***critical component*** of Geospatial-Intelligence (***GEOINT***)…



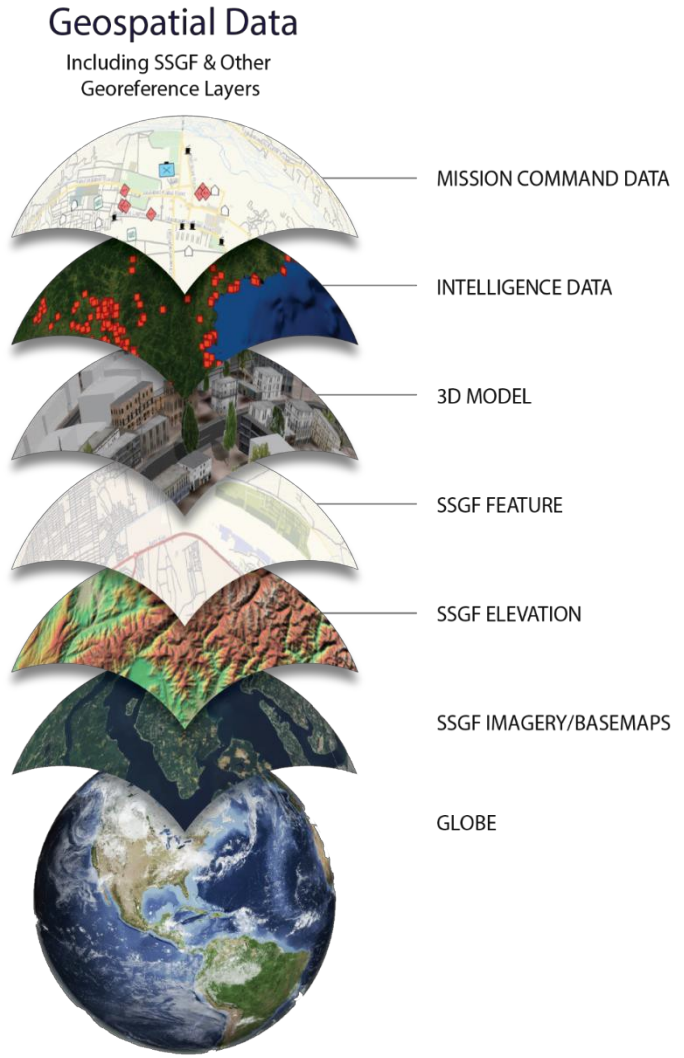


And a ***cross-cutting capability*** required to conduct a variety of Uniform Joint Task and Army Universal Tasks, consequently ***critical to all Warfighting Functions.***

ENABLING THE AGE

Army Geospatial Enterprise:

An integrated system of technologies, standards, data, organizations and processes that delivers a Standard and Shareable Geospatial Foundation (SSGF) at all echelons.



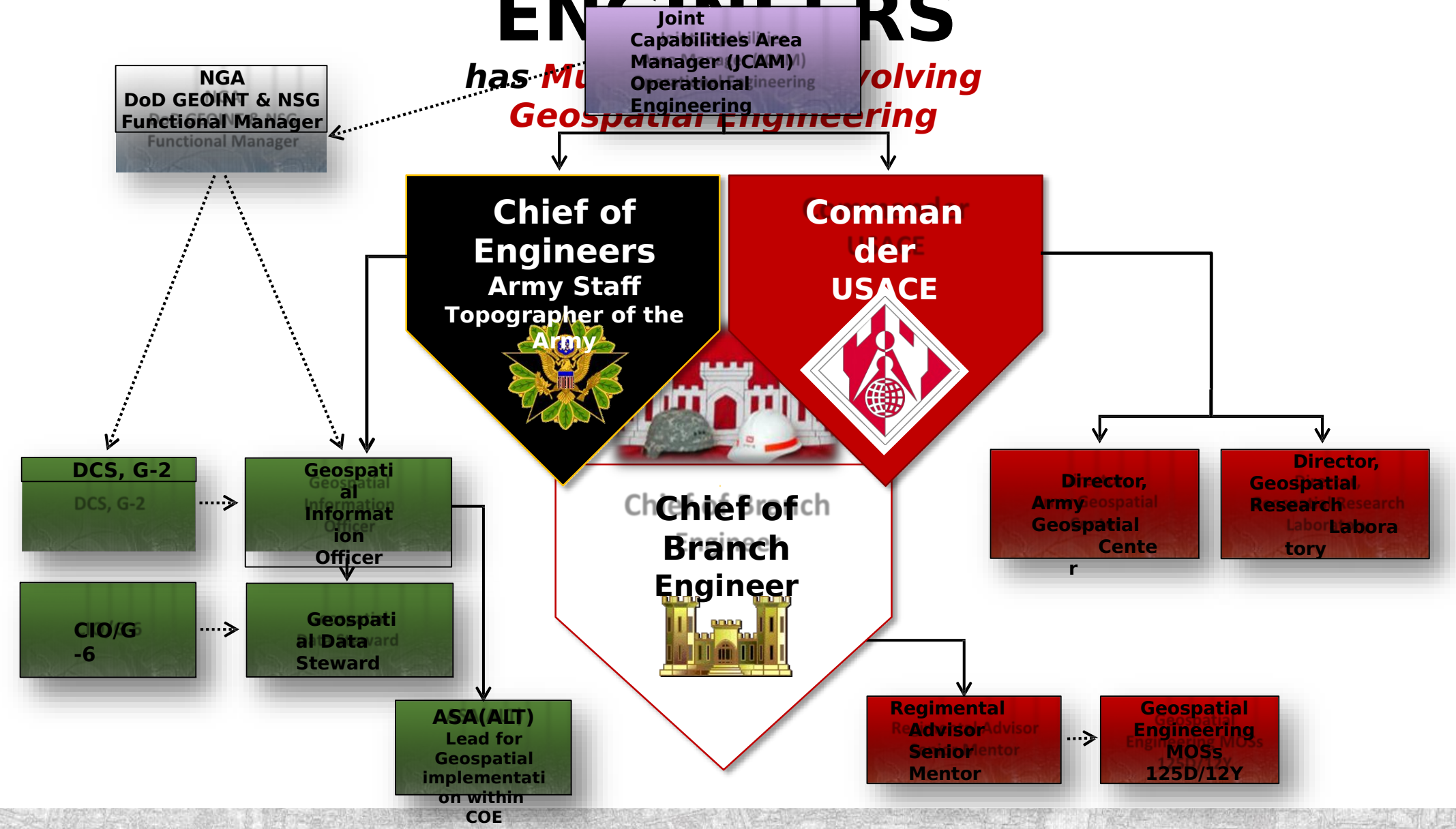
The AGE:

- Eliminates stove pipe systems
- Consolidates geospatial data formats standards, schema/models, viewers and data management process
- Ensures continuity of operations during
- Relief in Place/Transfers of Authority (RIP/TOA)

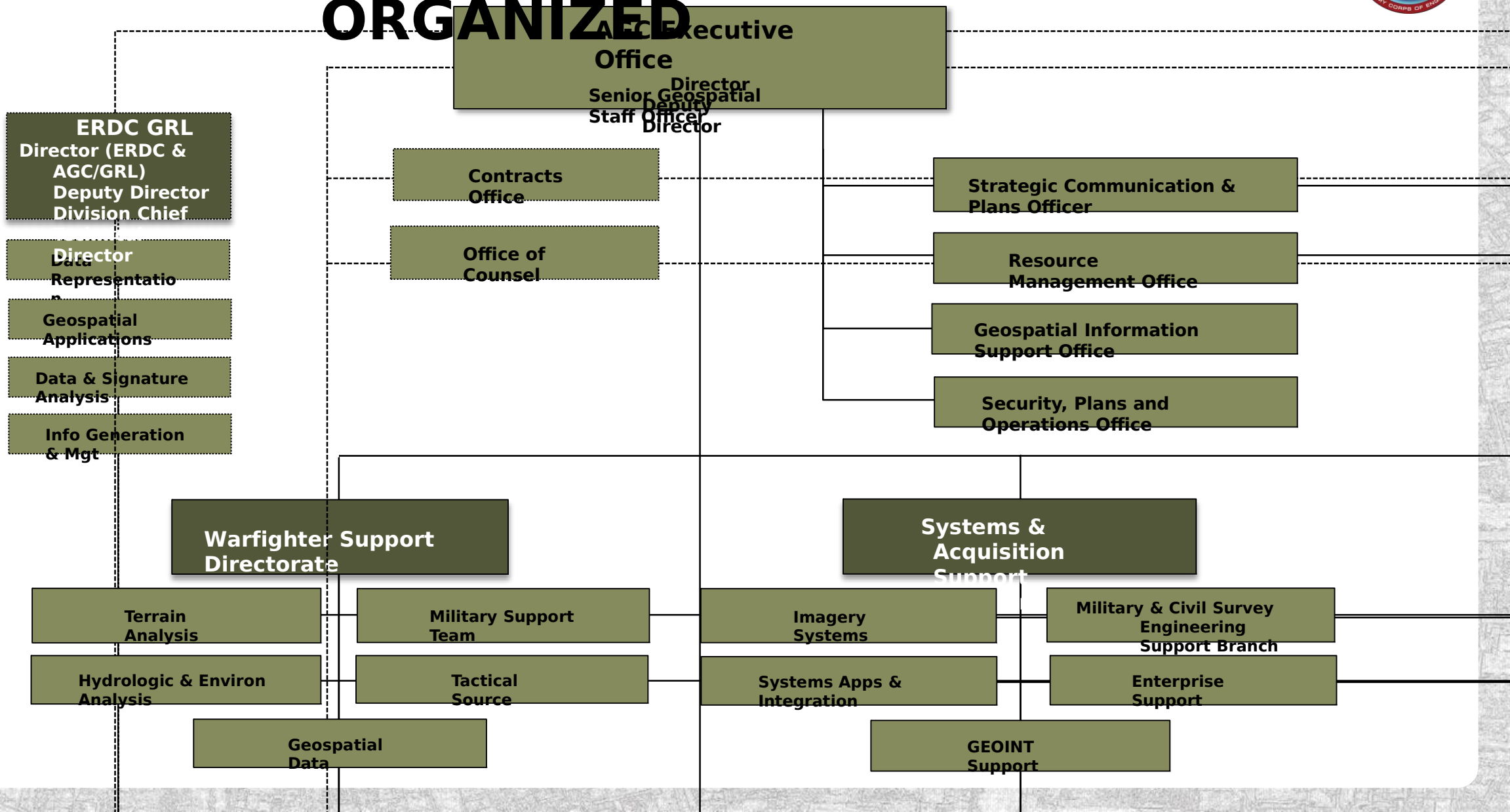
  Ensures the Army has the required geospatial products and training

CORPS OF ENGINEERS

has Multiple Roles involving Geospatial Engineering



HOW WE ARE NOW ORGANIZED



GEOSPATIAL RESEARCH AND ENGINEERING OVERVIEW

Geo-Enabled Computing Environments

Geospatial Engineering and Intelligence

Human Geography

GRE addresses capability gaps in establishing a flexible and adaptive Army Geospatial Enterprise (AGE) and the supporting analytics and services enabling all Warfighting Functions with particular focus on Intelligence Preparation of the Battlefield and Mission Command.

Implementing the AGE through a Standard and Sharable Geospatial Foundation (SSGF) and supporting analytics.

- Geospatial GMAD *
- Mission Planning
- Standards and Sharing

*Generation, Management, Analysis, Dissemination (AT 3-34.80 Geospatial Engineering)

Geospatial capabilities for superior situational awareness; knowledge of the terrestrial impacts on all phases of unified land operations.

- Analytics and Tactical Decision Aids
- Data Representation and Geo-Narratives
- Terrain/Environmental Ana
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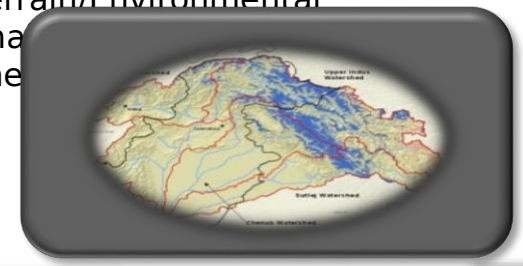
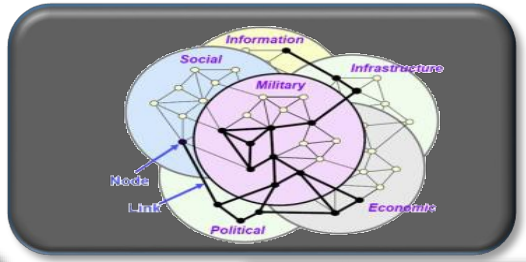


Knowledge of the theater environment including culture, terrain, climate, infrastructure, and demographics.

- Remote Sensing and Assessment of Population Dynamics
- Host Nation Stability Indicators
- Operational Impacts of Infrastructure and Culture within Densely Populated/Complex Areas



Warfighter

CCMD

TRADOC

PEOs

Labs/Centers

Academia

Industry

SYSTEMS ACQUISITION MISSION AREAS

GEOINT SUPPORT

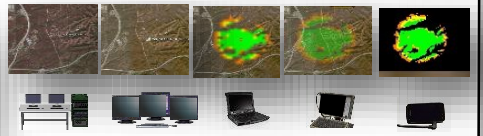
- Provide GEOINT domain support to DCGS-A
  - Geospatial, IMINT, FMV, MTI
  - Standard & Shareable Geospatial Foundation for the Army
  - Systems Engineering to in… heater a…

- Provide GEOINT domain support to TENCAP
  - Integrate NSG Modernization
  - Identify and harness new, emerging technologies
  - Coordinate and Synchronize Army GEOINT efforts

FIELD & MAINTAIN GEOSPATIAL SYSTEMS

- Combat Terrain Info Systems:
  - ENFIRE - Engr Recon Toolkit
  - Total Station - Automated Optical Survey
  - GPS– SAASM survey
  - Joint Construction Mgmt and design build capabilities
  - Army Dive team hydro survey
- Partnering with ERDC to adopt:
  - Environmental capabilities
  - Site Selection
  - Bridge health monitoring
  - Construction/design tools
  - REDI
  - S&T initiatives

ESTABLISH AND SUSTAIN THE ARMY GEOSPATIAL ENTERPRISE



- AGE Architecture
  - GEOINT reference architecture
  - COE reference architecture
- AGE Standards
  - Ground Warfighter Geospatial Data Model
  - NSG/Army Standard implementation profiles
- Systems Engineering
  - AGE Node
  - Geospatial Cross-Cutting Capabilities
  - Trade Studies
- Test and Certification
  - GEOINT Test Threads
  - AGE Certification in line with GFMSA
  - Network Integration

SUPPORT TO CIVIL WORKS

- USACE Survey Engineering & Mapping Technical Center of Expertise
- Inland Electronic Navigation Charts
- Comprehensive Evaluation of Projects with Respect to Sea Level Change
- USACE Survey Monument Archival & Retrieval
- National Inventory of Dams

SYSTEMS APPLICATIONS & INTEGRATION

- Special projects for DoD/Joint/Army/Intel Special Operations and State Department
- DoD Support to Civil Authorities Automated Support System
- Geospatially Enabled Arlington National Cemetery
- Marine Corps Civil Information Management System
- Command & Control of the Information Environment
- NGA Water Security for Stability Operations

WARFIGHTER SUPPORT MISSION AREAS

US Army Corps of Engineers
BUILDING STRONG®

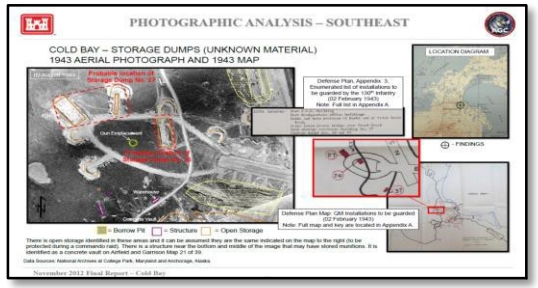
EMAP: Army Geospatial

- Provides geospatial engineering support to both operating and generating forces
- Provides reach-back support, training, technical and domain expertise to maneuver commanders, geoint teams, and generating forces to extend organic capabilities
- Provides efficient and cost-effective solutions to make National and Service- level geospatial information mission and application ready
- Fills critical geospatial support and production gaps

Water Resources

- **DoD's primary agent for military water resource analysis and water detection**
- **Water Resource Data Base (WRDB):** An enterprise geodatabase containing information on the location, quantity, quality, of land-based Surface, Ground, and Existing Water Facility features to support DoD water resource
- **Water Detection Response Team (WDRT):** Provides site selection analysis and water detection support to assist DoD military well drilling operations.

Historical Photo Analysis



- GIS-based historical photo analysis (HPA) focuses restoration and remediation efforts, leading to overall cost savings
- Identifies potential areas of environmental concern on U.S. Military installations:
- Hazardous, Toxic and Radioactive Waste (HTRW)
- Unexploded Ordnance (UXO) under the Military Munitions Response Program (MMRP)
- Landfill Locations, Groundwater Contaminate Pathways, and Shoreline Changes

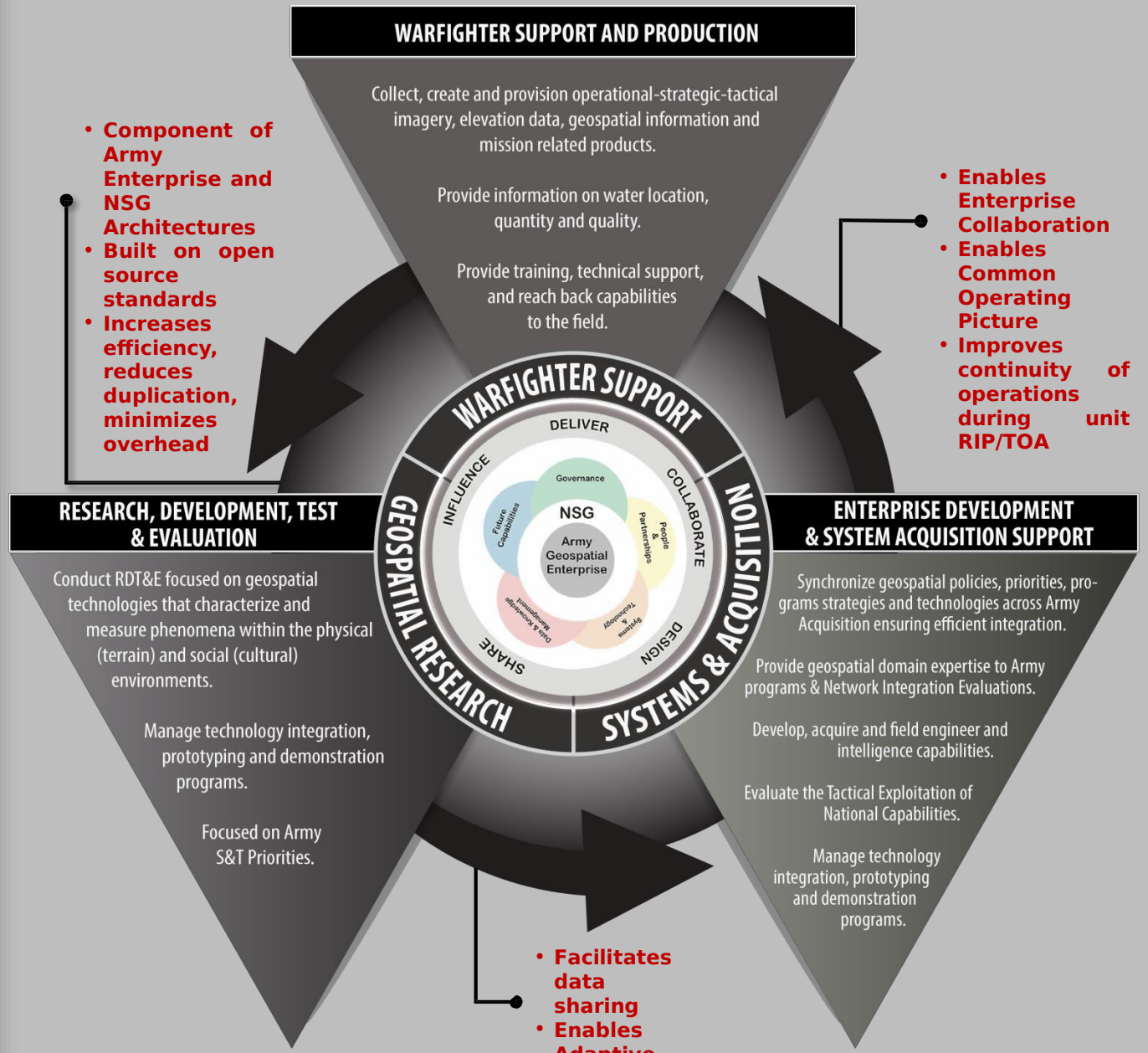
HR3D Data Collection

- High Resolution, Color, unclassified Imagery and Elevation Data that can be shared among interagency and international partners for both military and civilian
- Provides Situational Awareness / Understanding Terrain
- Enables Accuracy and Precision
- Reduces Casualties / Collateral Damage
- Provides Required Foundation Data

VISION: ***Enabling geospatial information dominance.***

MISSION: ***Providing timely, accurate, and relevant geospatial information, capabilities, and domain expertise for Army Geospatial Enterprise implementation in support of unified land operations.***

As the Army's geospatial knowledge Center, AGC provides ***a decisive advantage*** *by extending, filling and connecting NSG capabilities.*


WARFIGHTER SUPPORT AND PRODUCTION
Collect, create and provision operational-strategic-tactical imagery, elevation data, geospatial information and mission related products.
Provide information on water location, quantity and quality.
Provide training, technical support, and reach back capabilities to the field.
• Component of Army Enterprise and NSG Architectures
• Built on open source standards
• Increases efficiency, reduces duplication, minimizes overhead
• Enables Enterprise Collaboration
• Enables Common Operating Picture
• Improves continuity of operations during unit RIP/TOA
RESEARCH, DEVELOPMENT, TEST & EVALUATION
Conduct RDT&E focused on geospatial technologies that characterize and measure phenomena within the physical (terrain) and social (cultural) environments.
Manage technology integration, prototyping and demonstration programs.
Focused on Army S&T Priorities.
ENTERPRISE DEVELOPMENT & SYSTEM ACQUISITION SUPPORT
Synchronize geospatial policies, priorities, programs strategies and technologies across Army Acquisition ensuring efficient integration.
Provide geospatial domain expertise to Army programs & Network Integration Evaluations.
Develop, acquire and field engineer and intelligence capabilities.
Evaluate the Tactical Exploitation of National Capabilities.
Manage technology integration, prototyping and demonstration programs.
• Facilitates data sharing
• Enables Adaptive Planning
• Shapes commercial
WARFIGHTER SUPPORT
SYSTEMS & ACQUISITION
GEOSPATIAL RESEARCH
DELIVER
COLLABORATE
DESIGN
SHARE
INFLUENCE
Governance
NSG
Army Geospatial Enterprise
Future Capabilities
People & Partnerships
Systems & Technology
Data & Knowledge Management